

REMARKS

This responds to the Office Action mailed on October 13, 2004.

Claims 1–10 are amended, no claims are canceled or are added; as a result, claims are 1–10 and 20–23 now pending in this application.

§112 Rejection of the Claims

Claims 1–10 and 20–23 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection for the reasons stated below.

The Office Action states that in claim 1 the use of “a slot holder” in the preamble makes the scope of the claim unclear in view of the recitation of “card edge slots” in the body of the claim. Without conceding the appropriateness of the rejection and in order to clarify claim 1, Applicant has amended the preamble of claim 1 (and each of its dependent claims) herein to refer merely to “apparatus.” Applicant does not consider that such an amendment to the preamble affects the scope of the claims, the features of which are described in the body of the claims.

In claim 2, the Office Action suggests that it is not clear whether the “card slot” is part of the “slot holder.” The amendment discussed above is believed to eliminate any perceived issue with claim 1 since the claim is drawn to “apparatus” rather than to a “slot holder.”

The rejection of claim 6 as including language which “does not seem to further limit the claimed structure” is believed to be responded to by the amendment to the preamble discussed above.

Reconsideration and allowance of the claims, as amended, is respectfully requested.

§102 Rejection of the Claims

Claims 1–6 and 20–23 were rejected under 35 USC § 102(b) as being anticipated by Cuceglia et al. (U.S. 4,223,934). Applicant respectfully traverses the rejection for the reasons stated below.

Cauceglia relates to a tool for inserting and extracting printed circuit boards into and out of apparatus housing connectors¹ A plurality of printed circuit boards 11 is shown in Fig. 1 (as well as other figures) of Cauceglia which are installed in an apparatus housing 10 by insertion of an edge thereof into multiple pin connectors 30 which have prongs 31 to connect to the apparatus backplane.. In Cauceglia Fig. 1, an insertion-extraction tool 20 is shown connected to one of the printed circuit boards 11. Each of the printed circuit boards 11 is supported on opposite edges by tracks 15 mounted on crossbars 12 and 13. The printed circuit boards slide in tracks 15 into and out of the apparatus housing 10. Tool 20 engages the top and bottom crossbars 12 and 13 adjacent to a selected circuit board 11 to support it to allow insertion and extraction forces to be precisely directed to use the mechanical advantage afforded by the tool for insertion and extraction of each circuit board 11. A handle 21 is pivotably mounted to a frame piece to generate an extraction force which is applied to a catch slot 26 at the edge of the printed circuit board 11.

The Office Action alleges that claim 1 reads upon Cauceglia by attempting to equate the back connector sockets 30 of Cauceglia with the “slot insertion members” of claim 1. It is clear from Cauceglia that the connector sockets 30 receive pins from printed circuit cards 11 to bring them into electrical connection with the backplane by means of prongs 31. Claim 1, however, calls for “a plurality of slot insertion members having a plurality of pins extending from each of the card edge slots in alignment for insertion of the plurality of pins into a plurality of holes in a printed circuit board.” Evidence that the Office Action’s application of the claim to the Cauceglia patent is not appropriate is the fact that the Office Action points to no structure in Cauceglia where there are “card edge slots having a plurality of pins extending from each of the card edge slots in alignment for insertion of the plurality of pins into a plurality of holes of a printed circuit board.” Cauceglia relates to the insertion of pins of a printed circuit board into connectors 30 which, in turn, have prongs inserted into a backplane of some higher level apparatus. Cauceglia does NOT relate to insertion of pins of card edge slots (connectors) into holes on a printed circuit board as claim 1 requires.

As to the elements of claim 20 which are similar to those of claim 1, the same distinctions as pointed out with regard to claim 1 also apply to claim 20 and its dependent claims.

¹ Cauceglia. 4,223,934, Title

As to the fact that claim 20 calls for “at least two” grip attachment members, the Office Action contends only that Cauceglia discloses “at least two grip attachment members associated with at least two grip members” by referring to the apparatus denoted by reference characters 21 and 22 in Fig. 2. According to the specification of the Cauceglia patent, element 22 is “a bifurcated spring catch²” and reference character 21 refers to “notches³” to engage with lip 18 of the supporting crossbar 18 to which the insertion and extraction tool 20 of Cauceglia is mounted. Even if one were to ignore the differences between the reference characters specifically referred to in the application of the claim to Cauceglia and look more generally toward the interaction between the tool 20 of Cauceglia and a printed circuit board 11 as shown in the patent, it can be seen that the Cauceglia patent does not disclose any “grip attachment member” that meets the “to rigidly hold the plurality of slot insertion members in a fixed position” feature called for in claim 20.

Reconsideration and allowance of the rejected claims, as amended, is respectfully requested.

§103 Rejection of the Claims

Claims 7-10 were rejected under 35 USC § 103(a) as being unpatentable over Cauceglia et al. (U.S. 4,223,934). Applicant respectfully traverses the rejection for the reasons stated below.

Claims 7-10, which are dependent upon claim 1, are distinguishable from the Cauceglia patent for the same reasons as claim 1, since they each claim all of the features of claim 1 and additional features. Reconsideration and allowance of claims 7-10 is respectfully requested. .

² Cauceglia, col 4, line 4

³ Cauceglia, col 4 line 3

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
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Dkt: 884.B02US1 (INTEL)

Filing Date: September 24, 2001

Title: DEVICE AND METHOD FOR ASSEMBLING CARD EDGE SLOTS INTO A SUBSTRATE

Assignee: Intel Corporation

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6970) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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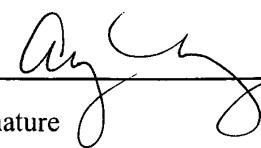
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 14th day of February, 2005.